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Patent  
Gaymar 0-03-099.02

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor: Guthrie  
Serial no.: 10/690,197  
Filed: 10/21/2003  
Title: Alternating Pressure Valve System  
Examiner: N/A  
Art Unit: N/A

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**PRELIMINARY RESPONSE**

Mail Stop Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

This response is in reply to the Filing Receipt and the Notice to File Corrected Application Papers that were both mailed on August 11, 2004.

Applicant submits 9 pages of formal drawings for the above-identified application. These drawings were acceptable for its parent application. Accordingly, we expect these drawings to be acceptable for this application as well.

In response to the Filing Receipt, we noticed that one of the claims of priority were not recorded. In the preliminary amendment that was filed with the submission of the above-identified application, applicant amended the specification by adding the following first full paragraph on page 1 to read as follows:

The present application claims the benefit of U.S. Non-provisional Patent Application Serial Number 09/626,434, filed on July 27, 2000; which is a Continuation-in-Part of U.S. Non-provisional Patent Application Serial No. 09/123,621, filed on July 28, 1998; which claims priority to U.S. Provisional Patent Application Serial No. 60/053,999, entitled "Alternating Pressure Valve System," filed on July 28, 1997 and is a Continuation-in-Part of U.S. Patent Application Serial No. 09/123,621 entitled "Alternating Pressure Valve System," filed on July 28, 1998.

In addition, the applicant claimed priority as a continuation of U.S. Non-provisional Patent Application Serial Number 09/626,434, filed on July 27, 2000, on the "Utility Patent Application Transmittal" document. We have enclosed copies of both documents to confirm the same.

We respectfully request that you amend the Filing Receipt as indicated thereon.

It is respectfully submitted that these claims are in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

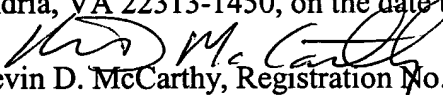
Date: 8/13/2004

By:   
Kevin D. McCarthy, Reg. No. 35,278

Roach Brown McCarthy & Gruber, P.C.  
1620 Liberty Building  
Buffalo, New York 14202  
716-852-0400

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Missing Parts, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

Date: 8/13/2004  Kevin D. McCarthy, Registration No. 35,278



Patent

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**PRELIMINARY AMENDMENT**

Mail Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

This amendment is being submitted in response to the notice of allowance that is expected in the parent patent application.

The claims as submitted can be found at page 2 of this preliminary amendment.

The amendment to the specification can be found at page 6 of this preliminary amendment.

The first page of remarks can be found at page 7 of this preliminary amendment.

Claims:

Cancel Claims 1-22 for numerous reasons -- allowance and restriction requirements.

Claim 23. (New) An alternating pressure valve system for an alternating pressure mattress comprising:

- (a) a blower with an air intake and air outlet;
- (b) a rotor valve assembly connected to the air outlet from the blower with the rotor valve assembly comprising:
  - (1) a housing with an air intake, a first air outlet, a second air outlet and a circular chamber for receiving the air from the air intake;
  - (2) a wedged shaped rotor valve rotatably contained within the circular chamber of the housing such that the rotor valve is capable of being positioned not to block the first air outlet and the second air outlet; and
- (c) means for controlling the rotation of the rotor valve.

Claim 24 (New) The alternating pressure valve system of Claim 23 wherein the controlling means comprises using a plurality of pressure sensors for sensing the relative air pressure at each outlet.

Claim 25 (New) The alternating pressure valve system of Claim 23 wherein the controlling means comprises using a microprocessor.

Claim 26 (New) The alternating pressure valve system of Claim 23 wherein the controlling means comprises a gearmotor to rotate the rotor valve.

Claim 27 (New) The alternating pressure valve system of Claim 26 wherein the gearmotor is controlled by printed circuit boards.

Claim 28 (New) The alternating pressure valve system of Claim 23 wherein the rotor valve blocks the first air outlet for about 0 seconds to about 5 minutes before moving to block the second air outlet.

Claim 29 (New) The alternating pressure valve system of Claim 28 wherein the rotor valve blocks the first air outlet for about 3 minutes before moving to block the second air outlet.

Claim 30 (New) The alternating pressure valve system of Claim 23 wherein the rotor valve is shaped such that the rotor valve completely blocks air flow to either the first or the second air outlet when the rotor valve is positioned in front of the first or the second air outlet.

Claim 31 (New) The alternating pressure valve system of Claim 23 wherein the rotor valve is shaped such that the top of the rotor valve completely blocks air flow to either the first or the second air outlet when the rotor valve is positioned in front of the first or the second air outlet and the shaft of the rotor valve is recessed from the circular chamber to allow for some air to flow around the rotor valve into the air outlet that is being partially blocked off by the rotor valve shaft.

Claim 32 (New) The alternating pressure valve system of Claim 23 wherein the blower is a variable speed blower to allow for the adjustment of the pressure inside an attached alternating pressure air mattress with faster speeds giving higher pressures and slower speeds giving lower pressures.

Claim 33 (New) An alternating pressure valve system for an alternating pressure mattress comprising:

- a variable speed blower with an air intake and an air outlet;

- a rotor valve assembly connected to the air outlet from the blower where the rotor valve assembly comprises: a housing with an air intake, a first air outlet, a second air outlet, and a circular chamber for receiving the air from the air intake; a wedged shaped rotor valve rotatably contained within the circular chamber of the housing such that the rotor valve can rotate to block the first air outlet, block the second air outlet, or block neither air outlets; a gearmotor connected to the rotor valve to rotate the valve from blocking the first air outlet to blocking the second air outlet; pressure sensors to sense the pressure at or near the first and second air outlets;

- means for controlling the gearmotor and rotor valve to allow for different periods of time between allowing air to flow through the first air outlet and the second air outlet; and

- means for controlling the speed of the variable speed motor to thereby control the pressure within an attached alternating pressure air mattress;

- wherein a wedged shaped rotor valve rotatably contained within the circular chamber of the housing such that the rotor valve is capable of not blocking the first air outlet and the second air

outlet.

Claim 34 (New) The alternating pressure valve system of Claim 33 wherein the pressure sensors determine the position of the rotor valve.

Claim 35 (New) The alternating pressure valve system of Claim 33 wherein the rotor valve blocks the first air outlet for about 0 seconds to about 5 minutes before moving to block the second air outlet.

Claim 36 (New) The alternating pressure valve system of Claim 35 wherein the rotor valve blocks the first air outlet for about 3 minutes before moving to block the second air outlet.

Claim 37 (New) The alternating pressure valve system of Claim 33 wherein the rotor valve is shaped such that the rotor valve completely blocks air flow to either the first or the second air outlet when the rotor valve is positioned in front of the first or the second air outlet.

Claim 38 (New) The alternating pressure valve system of Claim 33 wherein the rotor valve is shaped such that the top of the rotor valve completely blocks air flow to either the first or the second air outlet when the rotor valve is positioned in front of the first or the second air outlet and the shaft of the rotor valve is recessed from the circular chamber to allow for some air to flow around the rotor valve into the air outlet that is being partially blocked off by the rotor valve shaft.

Claim 39 (New) The alternating pressure valve system of Claim 33 wherein the means for controlling the gearmotor comprises printed circuit boards.

Claim 40 (New) The alternating pressure valve system of Claim 33 wherein the means for controlling the gearmotor comprises a microprocessor.

Claim 42 (New) An alternating pressure valve system and mattress comprising:

a variable speed blower with an air intake and an air outlet;

a rotor valve assembly connected to the outlet from the blower where the rotor valve assembly comprises: a housing with an air intake, a first air outlet, a second air outlet, and a circular chamber; a wedged shaped rotor valve rotatably contained with the circular chamber of the housing such that the rotor valve can rotate to block the first air outlet, block the second air outlet, or block neither air outlets; a gearmotor connected to the rotor valve to rotate the valve from blocking the first air outlet to blocking the second air outlet;

means for controlling the gearmotor and rotor valve to allow for different periods of time between allowing air to flow through the first air outlet and the second air outlet;

pressure sensors for detecting the pressure at or near the air outlets connected to the gearmotor controlling means;

means for controlling the speed of the variable speed motor to thereby control the pressure within an attached alternating pressure air mattress;

a display to indicate the relative pressure within the alternating pressure air mattress;

a low air loss alternating pressure air mattress connected to the first and the second air outlets such that some air to escape from the air mattress when there is air pressure within the air mattress and that alternating chambers or sacks are filled with air in the air mattress depending on the location of the wedged shaped rotor valve;

wherein the rotor valve is capable of being positioned not to block the first air outlet and the second air outlet.